IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

in re Patent Application of

FOULADI et al.

Atty. Ref.: 723-963

Serial No. 09/722,663

Group: 2673

Filed: November 28, 2000

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Examiner:

JUN 0 2 2003

For: GRAPHICS SYSTEM WITH COPY OUT CONVERSIONS BETWEEN EMBEDDED FRAME BUFFER AND MAIN

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MEMORY

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May 29, 2003

Assistant Commissioner for Patents Washington, DC 20231

Sir:

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Under 37 C.F.R. §§ 1.56 and 1.97, the applicant directs the attention of the Patent and Trademark Office to the items listed on the attached forms PTO-1449. These items were cited in copending commonly-assigned related patent applications as indicated in the appendix and not yet of record in this case. The Examiner is requested to cite and consider these items in this case.

Applicant is attaching copies of all items other than U.S. patents. The U.S. patents are readily available to the Examiner; applicant will submit a copy upon request.

Should the examiner need anything further to consider these items, please contact the undersigned at the telephone number listed below.

In the event a first Office Action has already been mailed, please treat this paper as a submission under 37 C.F.R. § 1.97(c) and charge Deposit Account No. 14-1140 for the fee required by 37 C.F.R. § 1.17(p). The U.S. Patent and Trademark Office is authorized to charge any fee which was asserted to have been filed or which should have been filed and to credit any overpayment, to that same Deposit Account No. 14-1140.

¹ The identification of the co-pending U.S. Patent Applications in the appendix is not to be construed as a waiver of secrecy as to those applications now or upon issuance of this application as a patent.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By:

Joseph S. Presta Reg. No. 35,329

JSP:bld

1100 North Glebe Road, 8th Floor

Arlington, VA 22201-4714

Telephone: (703) 816-4000 Facsimile: (703) 816-4100

APPENDIX

The items cited on the attached form PTO-1449 is of record in the co-pending related commonly-assigned patent applications as indicated below:

I. <u>Application No. 09/465,754 filed December 17, 1999 (atty. dkt. no. 723-799)</u> entitled "Vertex Cache For 3D Computer Graphics":

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                 Collmeyer et al.
    4,491,836
    4,653,012
                 Duffy et al.
    4,695,943
                 Keeley et al.
                 Cline et al.
    4,710,876
                 Keeley et al.
    4,768,148
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    4,785,395
                 Inoue et al.
    4,790,025
    4,812,988
                 Duthuit et al.
    4,829,452
                 Kang et al.
                 Barlow et al.
    4,833,601
    4,965,751
                 Thayer et al.
    4,975,977
                 Kurosu et al.
    5,056,044
                 Frederickson et al.
                 Gray et al.
    5,086,495
                 Einkauf et al.
    5,163,126
                 Dawson et al.
    5,179,638
                 Partovi et al.
    5,353,424
    5,448,689
                 Matsuo et al.
    5,657,045
                 Katsura et al.
    5,657,443
                 Krech, Jr.
                 Nonoshita
    5,659,673
                 Yamazaki et al.
    5,726,947
    5,740,406
                 Rosenthal et al.
                 Deering et al.
    5,745,125
                 Butterfield et al.
    5,748,986
    5,751,930
                 Katsura et al.
    5,754,191
                 Mills et al.
                 Norrod et al.
    5,801,720
    5,821,940
                 Morgan et al.
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5,838,334	Dye
5,886,701	Chauvin et al.
5,887,155	Laidig
5,940,089	Dilliplane
5,949,421	Ogletree et al
5,995,120	Dye
6,088,701	Whaley et al.
6,226,713 B1	Mehrotra
6,292,194 B1	Powll, III
6,408,362 B1	Arimilli et al.
6,426,747	Hoppe et al.
6,459,429	Deering

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White paper, Rogers, Douglas H., "Optimizing Direct3D for the GeForce 256" (1/3/2000)

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Thompson, Tom, "Must-See 3-D Engines," BYTE MAGAZINE, printed from web site www.byte.com, 10 pages (June 1996)

Thompson, Nigel, "Rendering with Immediate Mode," Microsoft Interactive Developer Column: Fun and Games, printed from web site msdn.microsoft.com, 8 pages (March 97)

"HOWTO: Animate Textures in Direct3D Immediate Mode," printed from web site support.microsoft.com, 3 pages (last reviewed 12/15/2000)

INFO: Rendering a Triangle Using an Execute Buffer," printed from web site support.microsoft.com, 6 pages (last reviewed 10/20/2000)

U.S. application Serial No. 09/337,293, filed 6/21/1999, "Multi-Format Vertex Data Processing Apparatus and Method

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Product Presentation, "RIVA128™ Leadership 3D Acceleration," 2 pages Hoppe, Hugues, "Optimization of Mesh Locality for Transparent Vertex Caching," PROCEEDINGS OF SIGGRAPH, pages 269-276 (August 8-13, 1999)

- II. Application No. 09/726,223 filed November 28, 2000 (atty. dkt. no. 723-751)
 entitled "Z Value Clamping In Near-Z Range To Maximize Precision Of Visually
 Important Z Components And To Avoid Near-Z Clipping In A Graphics
 Rendering System":
 - 4,888,712 BARKANS et al.
 - 4,907,174 PRIEM
 - 5,819,017 Akeley et al.
 - 5,923,332 IZAWA
 - 5,926,182 MENON et al.
 - 5,982,376 ABE et al.
 - 5,986,659 GALLERY et al.
 - 6,046,746 DEERING
 - 6,052,129 FOWLER et al.
 - 6,144,387 LIU et al.
 - 6,157,387 KOTANI
 - 6,285,779 Lapidous et al.
- III. Application No. 09/722,419 filed November 28, 2000 (atty. dkt. no. 723-958) entitled "Graphics Pipeline Token Synchronization":
 - 4,989,138 Radochonski
 - 5,345,541 Kelley et al
 - 5,467,459 Alexander et al.
 - 5,487,146 Guttag et al.
 - 5,768,629 Wise et al.
 - 5,828,907 Wise et al.
 - 5,835,792 Wise et al.
 - 5,872,902 Kuchkuda et al.
 - 5,982,390 Stoneking et al.
 - 6,046,752 Kirkland et al.
 - 6,252,610 Hussain
 - 6,476,808 Kuo et al.
- IV. Application No. 09/722,382 filed November 28, 2000 (atty. dkt. no. 723-961) entitled "Method And Apparatus For Direct and Indirect Texture Processing In A Graphics System":
 - 4,692,880 MERZ et al.
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5,003,496	HUNT, Jr. et al.
5,422,997	NAGASHIMA
5,469,535	JARVIS et al.
5,495,563	WINSER
5,548,709	HANNAH et al.
5,582,451	COX et al.
5,586,234	SAKURABA et al.
5,664,162	DYE
5,696,892	REDMANN et al.
5,706,481	HANNAH et al.
5,726,689	NEGISHI et al.
5,734,386	COSMAN
5,745,118	ALCORN et al.
5,764,237	KANEKO
5,777,623	SMALL
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5,835,096	BALDWIN
5,861,888	DEMPSEY
5,877,770	HANAOKA
5,892,517	RICH
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5,945,997	ZHAO et al.
5,963,220	LEE et al.
5,987,567	RIVARD et al.
5,999,198	HORAN et al.
6,002,407	FADDEN
6,011,565	KUO et al.
6,040,844	YAMAGUCHI et al.
6,046,747	SAUNDERS et al.
6,052,126	SAKURABA et al.
6,057,849	HAUBNER et al.
6,057,851	LUKEN et al.
6,057,861	LEE et al.

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V. <u>Application No. 09/722,367 filed November 28, 2000 (atty. dkt. no. 723-968)</u> entitled "Recirculating Shade Tree Blender For A Graphics System":

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4,586,038
5,278,948
             Luken, Jr.
             Jevans
5,561,752
             Osugi et al.
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5,949,428
             Toelle et al.
             Kajiya et al.
5,999,189
             Lin
6,016,151
             Sprague et al.
6,043,821
6,236,413
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"Developer's Lair, Multitexturing with the ATI Rage Pro," (7 pages) from ati.com web site (2000)

VI. Application No. 09/726,218 filed November 28, 2000 (atty. dkt. no. 723-960) entitled "Method And Apparatus For Efficient Generation Of Texture Coordinate Displacements For Implementing Emboss-Style Bump Mapping In A Graphics Rendering System":

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5,900,881 IKEDO
5,880,736 PEERCY et al.
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6,078,334	HANAOKA et al.
5,561,746	MURATA et al.
5,659,671	TANNENBAUM et al
4,974,177	NISHIGUCHI
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5.621.867	MURATA et al.

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              EUROPEAN
   4,615,013
              YAN et al.
              WINSER
   5,544,292
   5,563,989
              BILLYARD
   5,809,219
              PEARCE et al.
   5,870,102
              TAROLLI et al.
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              LUKEN
   5,956,043
              JENSEN
   6,049,337
              VAN OVERVELD
              VASWANI et al.
   6,052,127
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              WITTIG et al.
   6,191,794
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VIII. <u>Application No. 09/726,216 filed November 28, 2000 (atty. dkt. no. 723-967)</u> entitled "Achromatic Lighting in a Graphics System and Method":

4,275,413	Sakamoto et al.
5,016,183	Shyong
5,097,427	Lathrop et al.
5,361,386	Watkins et al.

5,467,438	Nishio et al.
5,473,736	Young
5,495,563	Winser, Paul A.
5,504,499	Horie et al.
5,557,712	Guay
5,566,285	Okada
5,649,082	Burns
5,687,304	Kiss, Kenneth W.
5,740,343	Tarolli et al.
5,943,058	Nagy
5,956,042	Tucker et al.
6,023,261	Ugajin
6,232,981	Gossett, Carroll Philip
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IX. Application No. 09/726,226 filed November 28, 2000 (atty. dkt. no. 723-964) entitled "Method And Apparatus For Anti-Aliasing In A Graphics System":

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              COOK et al.
   5,239,624
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   5,394,516
              WINSER
  5,600,763
              GREENE et al.
   5,651,104
              COSMAN
   5,764,228
              BALDWIN
              COSMAN et al.
   5,818,456
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              LATHAM
   5,877,771
              DREBIN et al.
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X. <u>Application No. 09/722,380 filed November 28, 2000 (atty. dkt. no. 723-957)</u> entitled "Graphics System With Embedded Frame Buffer Having Re-configurable Pixel Formats":

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            JOHARY et al.
5,241,658
            MASTERSON et al.
5,307,450
            Grosssman
5,543,824
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            RECKER et al.
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5,742,788
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5,890,190
            Rutman
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           LIPPINCOTT
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            HOWARD et al.
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           PUAR et al.
            AKELEY
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6,215,497
           Leung
            PUAR et al.
6,356,497
6,476,822
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XI. Application No. 09/585,329 filed June 2, 2000 entitled "Variable Bit Field Color Encoding" (atty. dkt. no. 723-749):

4,918,625 Yan
5,416,606 Katayama et al.
5,606,650 Kelley et al.
5,767,858 Kawase et al.

5,805,175	Priem
5,880,737	Griffen et al.
5,886,705	Lentz
5,894,300	Takizawa
5,914,725	Mcinnnis et al.
5,986,663	Wilde
6,005,583	Morrison
6,005,584	Kitamura et al.
6,016,150	Lengyel et al.
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10.2 Alpha Blending,

http://www.sgi.com/software/opengl/advanced98/notes/node146.html

10.3 Sorting, http://www.sgi.com/software/opengl/advanced98/notes/node147.html 10.4 Using the Alpha Function,

http://www.sgi.com/software/opengl/advanced98/notes/node148.html

Winner, Stephanie, et al., "Hardware Accelerated Rendering Of Antialiasing Using A Modified A-buffer Algorithm," Computer Graphics Proceedings, Annual Conference Series, 1997, pp 307-316

XII. Application No. 09/726,212 filed November 28, 2000 (atty. dkt. no. 723-956) entitled "Method And Apparatus For Dynamically Reconfiguring The Order Of Hidden Surface Processing Based On Rendering Mode":

5,144,291	Nishizawa
5,268,995	Diefendorff et al.
6,052,125	Gardiner et al.
6,111,584	Murphy, Nicholas J.N.
6,144,365	Young et al.

6,166,748 Van Hook et al.

6,172,678 B1 Shiraishi

6,204,851B1 / Netschke et al.

XIII. Application No. 09/726,212 filed November 28, 2000 (atty. dkt. no. 723-973) entitled "Method And Apparatus For Providing Non-Photorealistic Cartoon Outlining Within A Graphics System":

5,091,967 Ohsawa

5,666,439 Ishida et al

5,684,941 Dye

5,757,382 Lee

5,933,529 Kim

5,940,538 Spiegel et al

6,021,417 Massarksy

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Haeberli, Paul et al., "Texture Mapping as a Fundamental Drawing Primitive," Proceedings of the Fourth Eurographics Workshop on Rendering, 11pages, Paris, France (June 1993)

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XIV. Application No. 09/726,225 filed November 28, 2000 (atty. dkt. no. 723-954) entitled "Method And Apparatus For Providing Improved Fog Effects In A Graphics System":

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5,357,579 BUCHNER et al.

5,363,475 BAKER et al.

5,412,796 OLIVE

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5,724,561 TAROLLI et al.

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5,990,903 DONOVAN

6,005,582 GABRIEL et al.

6,064,392 ROHNER

6,268,861 B1 Sanz-Pastor et al.

6,342,892 B1 Van Hook et al.

6,437,781 B1 Tucker et al.

XV. <u>Application No. 09/722,664 filed November 28, 2000 (atty. dkt. no. 723-969)</u> entitled "Controller Interface For A Graphics System":

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5,607,157 NAGASHIMA

5,628,686 SVANCAREK et al.

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6,155,926 MIYAMOTO et al. 6,200,253 NISHIUMI et al. 6,264,558 NISHIUMI et al.

XVI. <u>Application No. 09/726,221 filed November 28, 2000 (atty. dkt. no. 723-955)</u> entitled "Method And Apparatus For Texture Tiling In A Graphics System":

4,974,176 BUCHNER et al. 5,490,240 FORAN et al. MIGDAL et al. 5,760,783 5,828,382 WILDE TAROLLI et al. 5,831,624 WILDE et al. 5,844,576 6,002,410 **BATTLE** 6,049,338 ANDERSON et al. 6,104,415 **GOSSETT** Dorbie et al. 6,466,223 B1

XVII. <u>Application No. 09/722,378 filed November 28, 2000 (atty. dkt. no. 723-965)</u> entitled "Z-Texturing":

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XVIII. <u>Application No. 09/723,336 filed November 28, 2000 entitled "Application Program Interface for a Graphics System" (atty. dkt. no. 723-976):</u>

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5,404,445	Matsumoto
5,432,900	Rhodes et al
5,438,663	Matsumoto et al
5,751,295	Becklund et al
5,861,893	Strugess, Jay J.
5,870,587	DANFORTH et al.
5,920,876	UNGAR et al.
5,936,641	Jain et al
5,995,121	Alcokrn et al
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6,275,235	Morgan, III, David L

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           HUANG et al.
           MATSUSHIMA et al.
5,706,482
           NALLY et al.
5,740,383
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           WU et al.
5,903,283
           SELWAN et al.
5,959,640
           RUDIN et al.
           JONES et al.
5,986,677
6,008,820
           Chauvin et al.
6,035,360
           Doidge et al
6,057,862
           MARGULIS
6,078,338
           HORAN et al.
           SAXENA et al.
6,091,431
           NIELSEN et al.
6,104,417
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5,043,922	Matsumoto
5,255,353	Itoh
5,377,313	Scheibl
5,402,532	Epstein et al.
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4,695,943 Keeley et al.

4,710,876 Cline et al.

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4,790,025 Inoue et al.

4,812,988 Duthuit et al.

4,829,452 Kang et al.

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